

## CASE REPORT

### Bartholin Gland Cyst in the Cow

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#### Introduction

The glands of Bartholin which secrete mucus most actively at estrus, have a tubuloalveolar structure. They are two in number, one on each side of the vestibule; each has a single duct lined with transitional epithelium which opens in the lateral wall of the vestibule about 2.5 cm caudal to the vagina (5).

Formation of retention cysts arising from occlusive lesions of the duct, as in metaplasia of the lining epithelium associated with chronic hyper-estrogenism in cows with ovarian follicular cysts, has been reported by McEntee (1). Trauma and extension of local necrotic vaginitis leading to obstruction of the duct opening was mentioned by Roberts (4) as causes for Bartholin gland cyst seen in older cows.

This report provides gross descriptions of Bartholin gland cysts observed in four cows in our clinic (Department of Surgery and Obstetrics, College of Veterinary Medicine, Iraq).

#### History

Four crossbred (Iraqi x Friesian) cows were presented to the clinic with a history of abnormal swelling noted at the vulva three to four weeks following calving. On examining the cows, a round enlargement ranging from four to six inches in diameter, covered with vaginal mucosa was noted protruding between the vulvar lips (Figure 1). In one cow the surface of the cyst was ulcerated due to frequent rubbing with the tail. The swelling felt soft, fluctuating and did not elicit pain on palpation, with the exception of the cow that had the lesion with the ulcerated surface. Exploratory puncture with a large bore needle revealed the presence of clear viscid fluid in the cyst in two cows, slightly turbid in one cow and was straw colored in the cow with the ulcer. The volume of the fluid varied between 50 to 100 ml in all four cows. *Brucella abortus* was isolated in one cow upon culture of the fluid content of the cyst. Biochemical analysis of the fluid revealed the presence of a high albumin content.

#### Treatment

The cyst responded to the injection of 10 ml of 2% Lugol's iodine into the cavity following evacuation of the content in all four cows.

#### Discussion

The cyst caused no problems at parturition nor did it interfere with conception as stated by Roberts (4). However, since the vulvar lips are kept opened by the cystic enlargement, contamination of the vagina, vestibule and vulva with feces and dirt may occur. The presence of the cystic Bartholin gland was unilateral in all cases, the shape of the external genitalia was distorted and a degree of vaginitis was noted associated with this defect in all four cows. McEntee (2) considered the presence of Bartholin glands as reservoirs for pathogenic organisms. It would be more useful to have histological studies on such cases but this was not carried out in our cases. Such observations were provided in human literature (3).

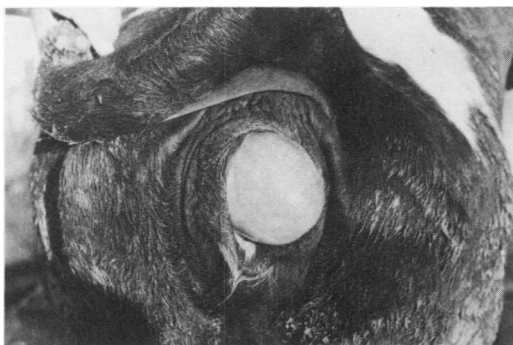


FIGURE 1. A large Bartholin gland cyst in one of the cases.

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#### References

1. McENTEE, K. The female genital system. *In* Pathology of Domestic Animals. Jubb and Kennedy, Vol. 1. pp. 487-585. New York and London: Academic Press. 1970.
2. McENTEE, K. Personal communications. 1972.
3. NOVAK, E.R. and J.D. WOODRUFF. Novak's Gynecologic and Obstetric Pathology with Clinical and Endocrine Relations. 7th Edition. p. 11. Philadelphia: W.B. Saunders Company. 1974.
4. ROBERTS, S.J. Veterinary Obstetrics and Genital Diseases. p. 496. Published by the author. Ithaca, N.Y. 1971.
5. TRAUTMAN, A. and J. FIEBIGER. Fundamentals of the Histology of Domestic Animals. p. 301. Ithaca, New York: Comstock Publishing Association. 1974.

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